

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. – 21. (Canceled)

22. (Original) A high quantum efficiency image sensor comprising:

a well region of a first conductivity in a substrate of a second conductivity opposite to said first conductivity wherein said well region in said substrate forms a photodiode;

an isolation region within said substrate overlying edge portions of said photodiode;

a stop layer overlying said photodiode; and

an interlevel dielectric layer overlying said stop layer.

23. (Original) The image sensor according to Claim 22 wherein said well region is an N-well and said substrate is a P-substrate.

24. (Original) The image sensor according to Claim 22 wherein said well region is a P-well and said substrate is an N-substrate.

25. (Original) The image sensor according to Claim 22 wherein said isolation region is a shallow trench isolation.

26. (Original) The image sensor according to Claim 22 wherein said stop layer comprises silicon nitride or silicon oxynitride.

27. (Original) The image sensor according to Claim 22 wherein said stop layer has a thickness of between about 400 and 1000 Angstroms.

28. (Original) The image sensor according to Claim 22 wherein said interlevel dielectric layer comprises silicon oxide.

29. (Original) The image sensor according to Claim 22 wherein said interlevel dielectric layer has a thickness of between about 7000 and 13,000 Angstroms.

30. (Original) The image sensor according to Claim 22 wherein a refraction index of said stop layer is less than a refraction index of said well region and greater than a refraction index of said interlevel dielectric layer.